

UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.ussto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/698,696	10/27/2000	Christopher J. Curtin	CT-A131 US	6128
75	90 10/23/2003		EXAMINER	
Wagner Murabito & Hao LLP			QUARTERMAN, KEVIN J	
Two North Mar San Jose, CA	ket St., Third Floor		ART UNIT PAPER NUMBER 2879	
5uii 5050, Ci i	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
			DATE MAILED: 10/23/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

Appl	ication No.	Applicant(s)				
	98,696	CURTIN ET AL.				
Office Action Summary Exam	niner	Art Unit	1.4			
	Quarterman	2879	I MU			
The MAILING DATE of this communication appears of Period for Reply	n the cover sheet with the c	orrespondence ad	daress			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
1)⊠ Responsive to communication(s) filed on <u>07 May 20</u>	102					
2a) This action is FINAL . 2b) This action						
,		resocution as to t	ho morite is			
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims						
4)⊠ Claim(s) <u>1-265</u> is/are pending in the application.						
4a) Of the above claim(s) 127-265 is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-126</u> is/are rejected.						
7)⊠ Claim(s) <u>69 and 107</u> is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9) The specification is objected to by the Examiner.						
10)⊠ The drawing(s) filed on <u>27 <i>October</i> 2000</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11) ☐ The proposed drawing correction filed on <u>07 November 2001</u> is: a) ☐ approved b) ☐ disapproved by the Examiner						
If approved, corrected drawings are required in reply to this Office action.						
12) The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. ☐ Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.8//		v (PTO-413) Paper No Patent Application (PT				

Art Unit: 2879

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-126, in Paper No. 12 is acknowledged.

Claim Objections

2. Claims 69 and 107 are objected to because of the following informalities: It appears that the term "compromises" in claim 69 should be replaced with the term comprises. In regards to claim 107, it appears that the letter *f* is missing from the term "urther" in the claim. *Appropriate* correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 1-30 and 41-126 are rejected under 35 U.S.C. 102(b) as being anticipated by Curtin (US 5725787).
- 5. Regarding independent claim 1, Figure 5 of Curtin shows a structure comprising a plate (302); a light-blocking region (314a) overlying the plate and being generally non-transmissive of visible light; an opening (not labeled) extending largely through the light-blocking region above where the plate is generally transmissive of visible light; a light-emissive region (313) overlying the plate and situated at least partially in the opening in the light-blocking region; a getter region (314b) overlying at least part of the light-

Art Unit: 2879

blocking region and extending no more than partially laterally across the light-emissive region; and a primary electrically non-insulating layer (315) overlying at least part of the getter region or/and at least part of the light-emissive region.

- 6. Regarding claim 2, Figure 5 of Curtin shows an opening (not labeled) extending through the getter region generally laterally where the light-emissive region overlies the plate.
- 7. Regarding claim 3, Curtin discloses that the light-blocking region is largely absorptive of visible light, which passes through the plate and impinges on the light-blocking region (col. 5, In. 60).
- 8. Regarding claim 4, Curtin discloses that the non-insulating layer is electrically conductive (col. 5, In. 61).
- 9. Regarding claim 5, Curtin also discloses a means for applying a selected electrical potential to the non-insulating layer during operation of the structure (col. 8, ln. 30-32).
- 10. Regarding claim 6, Figure 5 of Curtin shows the non-insulating layer overlying at least the light-emissive region.
- 11. Regarding claim 7, Curtin discloses that the non-insulating layer is generally reflective of visible light (col. 5, In. 61).
- 12. Regarding claim 8, Figure 5 of Curtin shows the non-insulating layer overlying the getter and light-emissive regions.
- 13. Regarding claim 9, Figure 5 of Curtin shows the non-insulating layer being perforated.

Art Unit: 2879

14. Regarding claim 10, Curtin discloses that the light-emissive region emits light upon being struck by electrons of sufficiently high energy (col. 6, ln. 1).

- 15. Regarding claim 11, Figure 5 of Curtin shows the light-blocking region laterally surrounding the light-emissive region.
- 16. Regarding claim 12, Figure of Curtin shows the light-blocking region extending further away from the plate than the light-emissive region.
- 17. Regarding claims 13-16, Curtin discloses that the getter region comprises at least one of aluminum, titanium, vanadium, iron, zirconium, niobium, molybdenum, barium, tantalum, tungsten, and thorium (col. 6, ln. 43-50).
- 18. Regarding claim 17, Figure 6G of Curtin shows an additional region (323) situated over at least part of the light-blocking region and under at least part of the non-insulating layer.
- 19. Regarding claim 18, Figure 6G of Curtin shows the additional region being situated over at least part of the getter region.
- 20. Regarding claim 19, Curtin discloses that the additional region is largely impervious to passage of gases (col. 9, In. 23-32).
- 21. Regarding claim 20, Curtin discloses that the additional region is largely impervious to the passage of electrons (col. 9, In. 23-32).
- 22. Regarding claim 21, Figure 6G of Curtin shows the additional region covering all, or nearly all, of the light-blocking region along its outside surface.
- 23. Regarding claim 22, Figure 6G of Curtin shows a protective layer (323) situated over at least part of the getter region and under the non-insulating layer, the protective

Art Unit: 2879

layer lying between at least part of the getter region and at least part of the lightemissive region.

- 24. Regarding claim 23, Curtin discloses that the additional region is largely impervious to passage of electrons (col. 9, In. 23-32).
- 25. Regarding claim 24, Figure 6G of Curtin shows the light-blocking region having a remote surface most distant from the plate, the getter region overlying at least part of the remote surface of the light-blocking region.
- 26. Regarding claim 25, Figure 6G of Curtin shows the getter region overlying largely all of the remote surface of the light-blocking region.
- 27. Regarding claim 26, Figure 5 of Curtin shows the getter region extending at least partway down into the opening in the light-blocking region.
- 28. Regarding claim 27, Figure 5 of Curtin shows the getter region extending substantially all the way down into the opening in the light-blocking region.
- 29. Regarding claim 28, Figure 5 of Curtin shows the getter region extending into the opening in the light-blocking region and partially over the plate at the bottom of the opening in the light-blocking region.
- 30. Regarding claim 29, Curtin discloses a device for emitting electrons that strike the light-emissive region and cause it to emit light (col. 7, In. 55-66).
- 31. Regarding claim 30, Figure 5 of Curtin shows the electron-emitting device including a getter region situated at least partially in an active electron-emitting portion of the electron-emitting device.

- 32. Regarding independent claim 41, Figure 2 of Curtin shows structure comprising a plate (303); an electron emissive element (309) overlying the plate; a support region (308) overlying the plate; a getter region (314b) overlying at least part of the support region; and a composite opening (not labeled) extending through the getter region and through the support region generally laterally where the electron-emissive element overlies the plate.
- 33. Regarding claim 42, Curtin discloses that a dielectric material is placed between the plates for stability (col. 1, ln. 59-62).
- 34. Regarding claim 43, Figure 2 of Curtin shows a control electrode (310) for selectively extracting electrons from the electron-emissive element, the control electrode overlying the plate and having an opening (not labeled) through which the electron emissive element is exposed.
- 35. Regarding claim 44, Figure 2 of Curtin shows an electrically insulating material (312) extending over at least part of the control electrode.
- 36. Regarding claim 45, Figure 2 of Curtin shows the support region extending further away from the plate than the control electrode.
- 37. Regarding claim 46, Figure 2 of Curtin shows the support region comprising a base-focusing structure (305) of an electron-focusing system for focusing electrons emitted by the electron-emissive element.
- 38. Regarding claim 47, Figure 2 of Curtin shows the electron-focusing system including an electrically non-insulating focus coating (315), which comprises the getter

Art Unit: 2879

region (314), whereby at least part of the focus coating overlies the base-focusing structure.

- 39. Regarding claim 48, Figure 2 of Curtin shows the electron-focusing system including an electrically non-insulating focus coating situated over at least part of the getter region, an opening extending through the focus coating at least generally laterally where the electron-emissive element overlies the plate.
- 40. Regarding claim 49, Figure 2 of Curtin shows the focus coating being perforated.
- 41. Regarding claim 50, Figure 2 of Curtin shows the electron-focusing system including an electrically non-insulating focus coating situated over at least part of the base focusing structure and under at least part of the getter region, an opening extending through the focus coating at least generally laterally where the electron-emissive element overlies the plate.
- 42. Regarding claim 51, Figure 2 of Curtin shows the support region comprising a control electrode (310).
- 43. Regarding claim 52, Figure 2 of Curtin shows a raised section overlying the plate and extending over at least part of the control electrode, the getter region being exposed through or/and situated in an opening in the raised section.
- 44. Regarding claim 53, Curtin discloses that the getter region focuses electrons emitted by the electron-emissive element (col. 6, In. 1-3).
- 45. Regarding claim 54, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically decoupled from the control electrode (col. 5, In. 56-63).

Art Unit: 2879

46. Regarding claim 55, Figure 2 of Curtin shows electrically insulating material (312) situated between at least part of the control electrode and at least part of the getter region.

- 47. Regarding claims 56-58, Curtin discloses that the getter region comprises at least one of aluminum, titanium, vanadium, iron, zirconium, niobium, molybdenum, barium, tantalum, tungsten, and thorium (col. 6, ln. 43-50).
- 48. Regarding claim 59, Curtin discloses a device for emitting light upon being struck by electrons emitted by the electron-emissive element (col. 7, In. 55-66).
- 49. Regarding claim 60, Figure 5 of Curtin shows the electron-emitting device including a getter region situated at least partially in an active electron-emitting portion of the electron-emitting device.
- 50. Regarding independent claim 61, Figure 2 of Curtin shows structure comprising a plate (303); an electron emissive element (309) overlying the plate; a control electrode (310) for selectively extracting electrons from the electron-emissive element, the control electrode overlying the plate and having an opening (not labeled) through which the electron emissive element is exposed; and a getter region (314b) overlying at least part of the control electrode.
- 51. Regarding claim 62, Figure 2 of Curtin shows an opening (not labeled) extending through the getter region and through the support region generally laterally where the electron-emissive element overlies the plate.
- 52. Regarding claim 63, Curtin discloses that a dielectric material is placed between the plates for stability (col. 1, ln. 59-62).

Art Unit: 2879

53. Regarding claim 64, Figure 2 of Curtin shows a raised section overlying the plate and extending over at least part of the control electrode, the electron-emissive element being exposed through a primary opening in the raised section.

- 54. Regarding claim 65, Figure 2 of Curtin shows the getter region being exposed through or/and situated in the primary opening in the raised section.
- 55. Regarding claim 66, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically coupled from the control electrode (col. 5, In. 56-63).
- 56. Regarding claim 67, Curtin discloses that the raised section comprises electrically non-insulating material substantially electrically decoupled from both the control electrode and the non-insulating material of the getter region.
- 57. Regarding claim 68, Figure 2 of Curtin shows the getter region being exposed through or/and situated in a further opening in the raised section, no operable electronemissive element being exposed through the further opening.
- 58. Regarding claim 69, Curtin discloses that the getter region comprises electrically non-insulating material (col. 6, In. 43-58).
- 59. Regarding claim 70, Figure 2 of Curtin shows an electrically insulating region (312) situated between the getter region and the control electrode.
- 60. Regarding claim 71, Curtin discloses that the raised section comprises electrically non-insulating material electrically coupled to the non-insulating material of the getter region.

Art Unit: 2879

61. Regarding claim 72, Figure 2 of Curtin shows the raised section comprising an electron-focusing system for focusing electrons emitted by the electron-emissive element.

- 62. Regarding claim 73, Curtin discloses that the getter region focuses electrons emitted by the electron-emissive element (col. 6, In. 1-3).
- 63. Regarding claim 74, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically decoupled from the control electrode (col. 5, In. 56-63).
- 64. Regarding claim 75, Figure 2 of Curtin shows electrically insulating material situated between at least part of the control electrode and at least part of the getter region.
- 65. Regarding claim 76, Curtin discloses a device for emitting light upon being struck by electrons emitted by the electron-emissive element (col. 7, In. 55-66).
- 66. Regarding claim 77, Figure 5 of Curtin shows the electron-emitting device including a getter region situated at least partially in an active electron-emitting portion of the electron-emitting device.
- 67. Regarding independent claim 78, Figure 2 of Curtin shows a structure comprising a plate (303); an electron-emissive element (309) overlying the plate; and a getter region (314) overlying the plate.
- 68. Regarding claim 79, Curtin discloses that the getter region receives a focus potential (col. 8, In. 27-33).

Art Unit: 2879

69. Regarding claim 80, Figure 2 of Curtin shows a control electrode (310) for selectively extracting electrons emitted by the electron-emissive element, an opening extending through the control electrode generally laterally where the electron-emissive element overlies the plate.

- 70. Regarding claim 81, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically decoupled from the control electrode (col. 5, In. 56-63).
- 71. Regarding claim 82, Figure 2 of Curtin shows an electrically insulating layer overlying at least part of the control electrode, the getter region overlying at least part of the insulating layer and being of greater thickness than the insulating layer.
- 72. Regarding claim 83, Figure 2 of Curtin shows an opening that extends through the getter region generally laterally where the electron-emissive element overlies the plate.
- 73. Regarding independent claim 84, Figure 2 of Curtin shows a structure comprising a plate (303); a group of electron-emissive elements (309) overlying the plate; a group of laterally separated control electrodes (310), the control electrodes overlying the plate, the electron-emissive elements being exposed through openings in the control electrodes; and a getter region (314) overlying the plate at a location between where a consecutive pair of the control electrodes overlie the plate.
- 74. Regarding claim 85, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically coupled to no more than one of the control electrodes (col. 5, In. 56-63).

Art Unit: 2879

75. Regarding claim 86, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically decoupled from each control electrode (col. 5, ln. 56-63).

- 76. Regarding claim 87, Figure 2 of Curtin shows the getter region connected by directly underlying material to the plate.
- 77. Regarding claim 88, Figure 2 of Curtin shows a raised section overlying the plate and extending over at least part of the control electrode, the electron-emissive element also being exposed through respective openings in the raised section, the getter region being exposed through or/and situated in an opening in the raised section.
- 78. Regarding claim 89, Figure 2 of Curtin shows the raised section comprising an electron-focusing system for focusing electrons emitted by the electron-emissive elements.
- 79. Regarding claim 90, Figure 2 of Curtin shows the raised section further including an additional getter region situated over at least part of an electrically non-insulating base focusing structure of the electron-focusing system.
- 80. Regarding claim 91, Curtin discloses that a dielectric material is placed between the plates for stability (col. 1, ln. 59-62).
- 81. Regarding claim 92, Figure 2 of Curtin shows an electrically conductive intermediate region.
- 82. Regarding claim 93, Figure 2 of Curtin shows a raised section extending over at least part of each control electrode, the electron-emissive element also being exposed

Application/Control Number: 09/698,696

Art Unit: 2879

through respective openings in the raised section, the getter region being exposed through or/and situated in an opening in the raised section.

- 83. Regarding claim 94, Curtin discloses a device for emitting light upon being struck by electrons emitted by the electron-emissive element (col. 7, ln. 55-66).
- 84. Regarding claim 95, Figure 5 of Curtin shows the light-emitting device including a getter region situated at least partially in an active electron-emitting portion of the electron-emitting device.
- 85. Regarding claims 96-98, Curtin discloses that the getter region comprises at least one of aluminum, titanium, vanadium, iron, zirconium, niobium, molybdenum, barium, tantalum, tungsten, and thorium (col. 6, ln. 43-50).
- 86. Regarding independent claim 99, Figure 2 of Curtin shows a structure comprising a plate (303); a group of electron-emissive elements (309) overlying the plate; a group of laterally separated control electrodes (310), the control electrodes overlying the plate; a raised section overlying the plate and extending over at least part of each control electrode; and a getter region (314) overlying the plate and exposed through of/and situated in a primary opening in the raised section.
- 87. Regarding claim 100, Figure 2 of Curtin shows the electron-emissive elements being exposed through openings in the control electrodes.
- 88. Regarding claim 101, Figure 2 of Curtin shows the getter region overlying at least part of a specified one of the control electrodes.
- 89. Regarding claim 102, Figure 2 of Curtin shows one of the electron-emissive elements exposed through the primary opening in the raised section.

Art Unit: 2879

90. Regarding claim 103, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically coupled to the specified control electrode (col. 5, In. 56-63).

- 91. Regarding claim 104, Curtin discloses that the raised section comprises electrically non-insulating material substantially electrically decoupled from both the control electrodes and the non-insulating material of the getter region.
- 92. Regarding claim 105, Figure 2 of Curtin shows no operable electron-emissive element being exposed through the opening in the raised section.
- 93. Regarding claim 106, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically decoupled from the control electrode (col. 5, In. 56-63).
- 94. Regarding claim 107, Figure 2 of Curtin shows an electrically insulating region (312) situated between the getter region and the specified control electrode.
- 95. Regarding claim 108, Curtin discloses that the raised section comprises electrically non-insulating material electrically coupled to the non-insulating material of the getter region.
- 96. Regarding claim 109, Figure 2 of Curtin shows the getter region overlying the plate at a location between where a consecutive pair of the control electrodes overlies the plate.
- 97. Regarding claim 110, Curtin discloses that a dielectric material is placed between the plates for stability (col. 1, ln. 59-62).

Application/Control Number: 09/698,696

- 98. Regarding claim 111, Figure 2 of Curtin shows an electrically conductive intermediate region.
- 99. Regarding claim 112, Figure 2 of Curtin shows the electron-emissive elements being exposed through respective openings in the control electrodes and in the raised section.
- 100. Regarding claim 113, Figure 2 of Curtin shows the raised section comprising an electron-focusing system for focusing electrons emitted by the electron-emissive elements.
- 101. Regarding independent claim 114, Figure 2 of Curtin shows a structure comprising a plate (303); a dielectric material is placed between the plates for stability (col. 1, In. 59-62); and a getter region (314).
- 102. Regarding claim 115, Curtin discloses that the getter region focuses electrons emitted by the electron-emissive elements (col. 6, ln. 1-3).
- 103. Regarding claim 116, Figure 2 of Curtin shows a group of laterally separated control electrodes (310), the electron-emissive elements being exposed through respective openings in the control electrodes.
- 104. Regarding claim 117, Figure 2 of Curtin shows a raised section extending over at least part of each control electrode, the electron-emissive elements also being exposed through respective openings in the raised section.
- 105. Regarding claim 118, Figure 2 of Curtin shows the getter region overlying at least part of a support region of the raised section.

Application/Control Number: 09/698,696

- 106. Regarding claim 119, Figure 2 of Curtin shows the support region comprising a base focusing structure of an electron-focusing system.
- 107. Regarding claim 120, Figure 2 of Curtin shows the getter region at a location between a consecutive pair of the control electrodes.
- 108. Regarding claim 121, Figure 2 of Curtin shows a raised section extending over at least part of each control electrode, the electron-emissive elements being exposed through respective primary openings in the raised section, the getter region also being exposed through or/and situated in a further opening in the raised section.
- 109. Regarding claim 122, Figure 2 of Curtin shows an electrically conductive intermediate region.
- 110. Regarding claim 123, Figure 2 of Curtin shows the getter region being situated over at least part of one of the control electrodes.
- 111. Regarding claim 124, Figure 2 of Curtin shows a raised section extending over at least part of each control electrode, the electron-emissive elements being exposed through respective primary openings in the raised section, the getter region also being exposed through or/and situated in a further opening in the raised section.
- 112. Regarding claim 125, Curtin discloses that the getter region focuses electrons emitted by the electron-emissive elements (col. 6, ln. 1-3).
- 113. Regarding claim 126, Curtin discloses that the getter region comprises electrically non-insulating material substantially electrically decoupled from the control electrode (col. 5, In. 56-63).

Art Unit: 2879

Claim Rejections - 35 USC § 103

114. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 115. Claims 31-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtin (US 5725787).
- 116. Regarding independent claim 31, Figure 5 of Curtin shows a structure comprising a plate (302); a light-blocking region (314a) overlying the plate and being generally non-transmissive of visible light; an opening (not labeled) extending largely through the light-blocking region above where the plate is generally transmissive of visible light; a light-emissive region (313) overlying the plate and situated at least partially in the opening in the light-blocking region; and a primary electrically non-insulating layer (315) overlying at least part of the light-blocking region.
- 117. Curtin teaches the claimed invention but fails to exemplify a getter region overlying the non-insulating layer above the light-blocking region. However, Curtin discloses that the getter layer could be rearranged to other locations without departing from the spirit of the invention (col. 11, In. 30-49).
- 118. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the getter layer of Curtin overlying the non-insulating layer, since rearranging parts of an invention involves only routine skill in the art.

Application/Control Number: 09/698,696

- 119. Regarding claim 32, Curtin discloses that the light-blocking region is largely absorptive of visible light, which passes through the plate and impinges on the light-blocking region (col. 5, ln. 60).
- 120. Regarding claim 33, Curtin discloses that the non-insulating layer is electrically conductive (col. 5, In. 61).
- 121. Regarding claim 34, Curtin also discloses a means for applying a selected electrical potential to the non-insulating layer during operation of the structure (col. 8, In. 30-32).
- 122. Regarding claim 35, Figure 5 of Curtin shows the non-insulating layer overlying at least the light-emissive region.
- 123. Regarding claim 36, Curtin discloses that the non-insulating layer is generally reflective of visible light (col. 5, ln. 61).
- 124. Regarding claim 37, Curtin discloses that the light-emissive region emits light upon being struck by electrons of sufficiently high energy (col. 6, In. 1).
- 125. Regarding claim 38, Figure of Curtin shows the light-blocking region extending further away from the plate than the light-emissive region.
- 126. Regarding claim 39, Curtin discloses a device for emitting electrons that strike the light-emissive region and cause it to emit light (col. 7, In. 55-66).
- 127. Regarding claim 40, Figure 5 of Curtin shows the electron-emitting device including a getter region situated at least partially in an active electron-emitting portion of the electron-emitting device.

Art Unit: 2879

Conclusion

128. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Makino (US 5986398) discloses a field emission device. Wedding Sr. (US 5793158) discloses plasma displays. Endriz (US 3867662) discloses grating tuned photoemitters. O'Keefe (US 3585433) discloses masked photochathode. Spindt (US 6049165) discloses flat panel display.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (703) 308-6546. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Kevin Quarterman Examiner Art Unit 2879

October 20, 2003

Nimesh Patel Supervisory Patent Examiner Art Unit 2879

Joseph William